A Single Market in Healthcare Services by Stealth?

Lior Herman
Working Paper 121/2013

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I would like to express my sincere gratitude to the Konrad Adenauer Stiftung and the European Forum at the Hebrew University for their generous and professional support of this research.
Abstract

Member States have up to now been reluctant to extend the Single Market sphere to the healthcare service trade, despite indications that market forces are at play. Forming part of a wider project on the construction of markets in Europe, this paper explores whether market integration is taking place in healthcare services from a narrow trade perspective. Applying an analysis based on measuring trade through the four modes of service supply, the paper finds that an internal market is gradually being formed within different layers of healthcare services provision, and to a higher degree than political developments at EU level would lead us to expect.

Key Words: European Union, Healthcare Services, International Trade, Single Market.

JEL Classifications: F14, F15, F22, I11

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1. An Emerging Single European Market in Healthcare Services

The completion of the Single Market (SM), albeit economic in its essence, has been a political
dependence since its inception. The four freedoms for the circulation of goods, services, capital
and labour within the European Union (EU) served at the birth of the European Community to
lock-in democracy, to advance social and political stability and to limit the possibility of an-
other war taking place in Europe. Further SM developments in later years whether expansion,
deepening or stagnation, fluctuated in parallel to political developments taking place in the EU
and its Member States (MS).2

The freedom of movement for services is defined in the Treaty of Rome in a general manner
without specific elaboration of those types of services which fall within the scope of the SM. Health care services in this regard are not carved out of the scope of the four freedoms.3 Never-
evertheless, it was commonly understood that healthcare, and particularly trade in healthcare ser-
ices, fall outside the boundaries of the SM due to their social nature and to the dominant role
played by MS in providing them. Responsibility for healthcare and healthcare systems was
considered primarily within the competences of individual MS. Healthcare was also heatedly
debated during the negotiations on the Services Directive and was finally rejected from its
scope.

Non-trade healthcare issues arose only when relating to SM matters, such as occupational
health in working conditions, removal of obstacles related to social security in order to facilitate
the general movement of workers, and the application of health protection by MS for deroga-
tion from the four freedoms. Further healthcare-related issues were introduced with the 1992
Single Market Programme, in the context of harmonisation of pharmaceutical approval sys-
tems, safety of medical devices and new provisions progressively supporting recognition of
professional qualifications, including several medical professions, such as doctors and nurses.4
Further cooperation in the area of healthcare was facilitated by the Maastricht and Amsterdam
treaties. Yet, all of these developments mainly addressed non-trade aspects of healthcare and

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2 Alan Dashwood. "Hastening Slowly: The Communities' Path Towards Harmonization." In Policy-Making in the
Andrew Moravcsik. "Negotiating the Single European Act: National Interests and Conventional Statecraft in the
Approach to Policy.” Policy-making in the European Union. Helen Wallace, William Wallace and Mark A Pol-

3 Title III addresses the freedoms of movement for workers, the right of establishment, provision of services, as
well as capital flows and payments, in chapters 1-4 respectively.

4 Robert Coleman. “EU Policies and Programmes Concerning Health: A Short History.” Briefing Paper
can by and large be seen as a neo-functional technical spillover from other areas of the SM. MS objected to the idea of extending the SM to healthcare services and upheld article 152(5) of the Rome Treaty which stipulated that that "community action in the field of public health shall fully respect the responsibilities of the MS for the organisation and delivery of health services and medical care".

Regulation 1408/71 from 1971 was a notable legal exception, de-facto facilitating closer market integration between MS. Addressing the issue of cross-border patients’ treatments, this regulation dealt with the application of social security schemes to employed persons, self-employed persons and members of their families moving within the Community. According to the Regulation, an authorisation from the competent authority needs to be obtained by citizens (in practice, mostly workers and pensioners) who wish to consume healthcare services in the territory of another member state.

While MS viewed healthcare services as falling outside the scope of the SM, this regulation steadily advanced bottom-up pressure by citizens challenging the boundaries of the SM before the European Court of Justice (ECJ) in a growing number of cases. In these cases citizens challenged the MS’ application of Regulation 1408/7, arguing that their right to consume healthcare in another MS, and to be compensated for it, was infringed. ECJ rulings have consistently upheld citizens' rights for compensation and at the same time defined the conditions by which this right can be exercised and restricted.5 Table 1, based on Hazopoulos (2006), provides an overview of selected notable case law, and the way in which these cases expanded the legal and political understandings concerning the boundaries of the SM with relation to healthcare services trade, as well as MS’ and citizens’ competencies, powers and obligations.

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Table 1: Selected Case Law Promoting a Single Market in Healthcare Services

<table>
<thead>
<tr>
<th>Decision</th>
<th>Case Laws and Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue: Should healthcare services be regarded as services? Part of the Single Market?</td>
<td></td>
</tr>
<tr>
<td>1. Healthcare can be part of four freedoms</td>
<td>Luisi and Carbone, 1984</td>
</tr>
<tr>
<td>2. The freedom of movement applies to healthcare services, even if they constitute services with &quot;special nature&quot;</td>
<td>SPUC v. Grogan, 1991</td>
</tr>
<tr>
<td>3. The freedom of movement must be respected by national security and health systems</td>
<td>Kohll, 1998</td>
</tr>
<tr>
<td>5. The particular nature of MS' healthcare systems have no direct impact on whether healthcare are to be determined to fall within the scope of the Single Market, yet competition and public procurement rules are to be applied in certain cases</td>
<td>Vanbraekel, 2001</td>
</tr>
<tr>
<td>6. The free movement and establishment of health professionals serves the provision of cross border services</td>
<td>Smit and Peerboom, 2001</td>
</tr>
<tr>
<td>7. Establishment requirements for provision of healthcare are illegal but cross-border provision may need to comply with home country regulation so long as it does not duplicate the requirements in the country of establishment (country of provision)</td>
<td>Muller-Faure, 2003</td>
</tr>
<tr>
<td></td>
<td>Watts, 2006</td>
</tr>
<tr>
<td></td>
<td>FFSA, 1995</td>
</tr>
<tr>
<td></td>
<td>Sodemare, 1997</td>
</tr>
<tr>
<td></td>
<td>Togel, 1998</td>
</tr>
<tr>
<td></td>
<td>Glockner, 2001</td>
</tr>
<tr>
<td></td>
<td>Kohll, 1998</td>
</tr>
<tr>
<td>Remuneration and its definition</td>
<td>Commission v. France, health laboratories, 2004</td>
</tr>
<tr>
<td>1. Remuneration can take place when a third party is paying for healthcare consumed by patients, even when indirect relationship exists between the nature and cost of the service and remuneration method</td>
<td>Smit and Peerboom, 2001</td>
</tr>
<tr>
<td>2. The criteria for remuneration is based on the expenses incurred by the patient, rather than on home or host country basis</td>
<td>Vanbraekel, 2001</td>
</tr>
<tr>
<td>3. Travel and related expenses may be reimbursed if this is the practice carried out by the home institution</td>
<td>Muller-Faure, 2003</td>
</tr>
<tr>
<td></td>
<td>Leichtle, 2004</td>
</tr>
<tr>
<td></td>
<td>Acereda Herrera, 2006</td>
</tr>
<tr>
<td></td>
<td>Watts, 2006</td>
</tr>
<tr>
<td>Member States’ powers to organise their social security systems</td>
<td>Poucet and Pistre, 1993</td>
</tr>
<tr>
<td>1. Deviation from the four freedoms is allowed for upholding the principle of solidarity exercised by country-specific social policy systems</td>
<td>Duphor, 1997</td>
</tr>
<tr>
<td></td>
<td>Sodemare, 1997</td>
</tr>
<tr>
<td>Decision</td>
<td>Case Laws and Year</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>2. Exemption from the practices of the Single Market is to be evaluated according to a set of criteria determining whether the funding institute operates with the scope of the market or is beyond it</td>
<td>Freskot vs. Elliniko Dimosio</td>
</tr>
</tbody>
</table>

**Exemptions from the Single Market**

1. Healthcare could possibly be exempted from the Single Market's scope on the notion of "Services of General Interest" but needs to be evaluated on a case-by-case basis

2. Exemption from the Single Market can be based on consideration of ensuring financial stability within hospitals (though not out-patients services) and for maintaining universal provision of healthcare services.

3. The definition of "hospital infrastructure" is to be restrictively interpreted so not abuse the freedom of movement

**Authorisation**

1. Patients can move to other MS for non-hospital treatment without applying before for authorisation, pay directly for the treatment and then reimbursed in their home country according to home rates

2. If authorisation was sought before the treatment was performed it should be transparent and timely; could not discriminate between reimbursement paid at home country; could not be excluded on national criteria; and should always be given if the treatment cannot be performed in the home country within a reasonable time and based on the particular condition of each patient

3. Patients can receive treatment in other MS if their treatment is "undue" delayed by waiting lists

*Source: adapted from Hatzopoulos, 2006*

These ECJ rulings pushed the European Commission to propose the inclusion of healthcare services elements as part and parcel of the SM. Accordingly, the Commission’s proposal for the Services Directive applied the freedom of movement principles to the area of healthcare services. This proposal met considerable political rejection by MS at the Council of Ministers, as well as from the European Parliament, leading to the carve-out of healthcare services from the scope of the Services Directive. Nevertheless, since ECJ rulings established a clear link between patients’ rights for cross-border healthcare provision and labour market mobility, the
Commission proposed in 2008 a specific policy initiative codifying these rulings through a directive on patients’ rights in cross-border healthcare. In February 2011, following a second-reading-compromise reached in an informal trilogue between the Belgian Presidency and representatives of the European Parliament, the Council approved Directive 2001/24/EU on the Application of Patients’ Rights in Cross-Border Healthcare. This Directive provides greater clarity and transparency as to patients’ rights to receive healthcare in another MS and to be reimbursed (MS may also choose to directly pay the healthcare provider directly). The Directive also allows MS to introduce certain systems of prior authorisation to manage patients’ outflows, as well as measures for managing incoming flows of patients from other MS. It also establishes national contact points providing information, strengthen cooperation between MS, particularly with regard to e-healthcare, as well as an improved system for recognition of prescriptions.

From a trade perspective, this new Directive, entering into force at the end of October 2013, largely addresses one aspect of services trade, namely the consumption of healthcare across the border by the movement of patients. It does not address other elements of trade, such as cross-border trade or the movement of healthcare professionals between Member States’ borders. These two areas of trade are partially covered by other legislation, which is of a more general character, Directive 2005/36/EC on the Recognition of Professional Qualifications and Directive 2000/21/EC on E-Commerce. As such, one of the main caveats of the new Directive is its lack of an overarching approach to the healthcare services market, which ought to address the relationship between different modes of services provision.

Nevertheless, despite MS reluctance to extend the SM to the area of healthcare, there is growing evidence that this is taking place. Cross-border consumption of healthcare is sharply rising every year with more and more European patients seeking medical treatments in other MS. Health professionals, such as doctors and nurses, are also moving across borders in the EU, seeking employment opportunities, and internal EU trade is evolving in healthcare through electronic exchanges.

This paper forms part of a larger research project on the construction of markets in the EU, dealing with various aspects such as the establishment of property rights, governance structures, conceptions of control, rules of exchange and more. Specifically, this paper focuses on

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a single dimension of market construction and integration, the trade aspect, asking whether integration in the area of trade is indeed taking place, and if so in what ways. As indicated above, the findings suggest an increasing market creation in healthcare services.

The paper is constructed in the following manner. First, it develops the analytical framework for analysis of trade in services. The following section considers the magnitude, direction and level of trade integration among the MS in each of the four modes of service trade: cross-border trade, consumption abroad, commercial presence and the movement of workers. The final section draws implications and concludes.


7 Thus, it does not deal with other aspects explaining why and how a healthcare market is created.
8 With the exclusion of the analysis of movement of workers, this paper only addresses healthcare services in private provision.
2. International Trade in Services and Healthcare Services

In contrast to trade in goods which can be captured by a single measurement of trade flows, international trade in services is represented by four different measurements for each mode of service supply. Since a good is usually first produced and then sold, locally or internationally, autonomously from its production process, it is possible to distinguish and to isolate its trade pattern. However, the production and trade of services cannot be as easily separated and the actual exchange or supply of the service is often directly linked with the place of its production. The result is that trade in services is measured in four dimensions that represent what Hoekman refers to as “different ‘carriers’ that transport services”: cross-border trade, consumption abroad, commercial presence and the movement of workers.9

The four-modes-of-supply framework has been widely adopted in the literature and provides the conceptual and legally binding basis for liberalisation at the World Trade Organisation (WTO). Table 2 defines and explains each mode of supply.

Table 2: The Four Modes of Services Supply

<table>
<thead>
<tr>
<th>Mode</th>
<th>Definition</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cross border supply</td>
<td>The supplier and consumer remain in different territories, while only the service crosses the border.</td>
</tr>
<tr>
<td>2</td>
<td>Consumption abroad</td>
<td>The consumer crosses the border to the territory of the supplier and consumes the service there.</td>
</tr>
<tr>
<td>3</td>
<td>Commercial presence</td>
<td>The supplier crosses the border to the territory of consumption and establishes a commercial presence.</td>
</tr>
<tr>
<td>4</td>
<td>Presence of natural persons</td>
<td>Temporary movement of labour to the consumer’s territory. This movement can be either as an intra-corporate transferee, self-employment or salaried labour.</td>
</tr>
</tbody>
</table>

Services are almost always supplied or traded through more than one mode. Technology renders feasible the supply of almost all services through cross border supply (mode 1) with

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very few exceptions.\textsuperscript{10} The distinction between modes 3 and 4 is that while the supply of services through commercial presence is more focused on the local establishment of foreign legal entities, supply of services through the presence of natural persons\textsuperscript{11} is concerned with the country of origin of the person supplying the service.

International trade in service statistics leave a lot to be desired and in most cases lack a systematic analysis of the four modes of supply. The absence of a comprehensive analysis stems from various challenges related to the collection of services statistics,\textsuperscript{12} but has significantly improved in recent years providing scope for new research in this area. Research on international trade in healthcare services has not been an exception, and only a few attempts have been made to provide a comprehensive analysis.\textsuperscript{13} In this regard, the methodology applied in this paper provides an advanced comprehensive analysis of trade in services. When specific modes of supply statistics are not available or lacking, the paper uses proxy indicators to assess the level of international trade in healthcare services. Proxy indicators reduce the statistical obstacles inherent in the quantification of trade in services. A caveat is that using proxy indicators, groups together different measurements which do not necessarily provide for cross modes of supply comparisons. Nevertheless, in the absence of a unified statistical measurement (i.e., comparable measurements of trade flows in each mode of supply), this framework improves on existing measurements, using the best available data.

\textsuperscript{11} Natural persons refer to employees or workers. A natural person is a human being in contrast to a legal person, which is a legal distinction of an organisation for various purposes.
\textsuperscript{12} Measurement of service activity is by far more difficult than that of goods, and suffers from numerous statistical flaws, that mainly derive from the intangible nature of many services. A great deal of service transactions are not measured since they are cross-border traded without any inspection or counting, such as in the case of e-commerce. Another reason is that transactions which bundle together goods and services are usually measured solely as goods transactions, thus many companies whose core of activity is in manufacturing, perform service activities, but are statistically regarded in the manufacturing sector (Porter, 1998). For a comprehensive discussion see: Robert Lipsey, Measuring International Trade in Services, NBER Working Paper No. 12271, Cambridge: NBER (2006).

3.1 Mode 1: Cross-border trade

Cross-border trade in services occurs when the service supplier and the service consumer remain in their respective countries, and only the service travels across the border as part of the transaction. This mode of trade somewhat represents the typical export-import mode common to trade in goods.

Trade in health services through mode 1 is in fact not a recent phenomenon. Traditionally, cross-border trade in health services included services such as clinical consultation and shipment of laboratory samples. These were provided using mail, telephony and fax machines. Nevertheless, the development of modern Information and Communication Technologies (ICT) has enabled and increased the tradability of numerous health services, which in the past necessitated close proximity between the service provider and the patient (or the health consumer). Thus, while trade through mode 1 has been an old feature of healthcare services, it is considered to have risen significantly over the past 20 years.

Many health service activities form part of what is referred to as e-health: "the application of information and communications technologies across a whole range of functions that affect the health sector, from the doctor to the hospital manager and from data processing to social security administrators and the patient". Examples of cross-border trade in health services using ICT include telemedicine, telepathology, telesurgery, telepsychiatry, teleradiology and other analysis and diagnosis of laboratory tests, remote consultations and surveillance, as well as remote education and the purchase of health insurance. Such trade allows greater healthcare availability from at least two perspectives. First, specialised treatments can be performed even in places where specialised medical professionals are not present. This has great potential for better delivery of healthcare services in rural or remote areas since specialists concentrate in larger hospitals, often located in big cities. Second, telemedicine enables provision of healthcare on a 24/7 basis all year round, and minimises the congestion for treatments, where the growth of demand has increased faster than the number of medical professionals.

15 A US Federal report estimated in 2004 the telemedicine market in the US at 380 million dollars, with an annual growth rate of more than 15%.
16 The EU has been specifically promoting e-health infrastructure inter alia in order to improve the tradability of health services and develop a European market in this area. In that regard, it adopted an e-Health Action Plan in 2004, and took several other steps towards that aim (European Commission, 2004; EuroActiv, 2008).
The availability of data on cross-border trade in healthcare services varies considerably across the period examined (2000-2006), as well as between the MS. Nevertheless several conclusions can be drawn, regarding the magnitude, directions of trade and the level of integration between the MS examined.

Overall, the level of cross-border trade is rather marginal in absolute figures. MS' individual exports and imports are no higher than several millions of USD. Italy's trade is by far higher than the rest of the MS in the sample and was 53.6 million USD in 2005. Aggregated exports and imports for all MS in the sample in the same year were less than 157 million USD.

Poland and Slovenia are net exporters of cross-border healthcare services for both the EU and the world. Cyprus has also become a net exporter to the EU in recent years but at the same time became a net importer from the world. Italy and Luxemburg are net importers from the EU and the world. Less conclusively, Denmark and Hungary are net importers from the EU and net exporters to the world, Slovakia and Romania are both net exporters to the EU and the world, and the Czech Republic is a world net exporter but an importer from the EU.

By and large, intra-EU trade has been growing faster than the trade of the MS to the rest of the world. Italy, Lithuania, Luxemburg and Slovenia are exceptions to this rule and the extra-EU export growth is higher than to the other MS. Similarly, Italy and Slovenia are exceptions with regard to the growth of imports.

While cross-border healthcare trade has been growing quickly, its actual share of gross output in healthcare is still very low and marginal. Slovenia reported the highest ratio in 2005, which was only a mere 0.81%. Other MS reported substantially lower ratios, with Slovakia reporting the second highest ratio of 0.03%.

Measurement of the geographical concentration of MS' trade, using the Hirschmann-Herfindahl Index, shows a low degree of trade orientation towards the EU region. On average only less than 10% of MS' trade (exports and imports) is done within the EU. Italy and Denmark

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17 Bilateral data was available for 11 MS: Cyprus, Czech Republic, Denmark, Hungary, Italy, Lithuania, Luxemburg, Poland, Romania, Slovakia and Slovenia.

18 The Hirschmann-Herfindahl Index (HHI) is given by $HHI = \sqrt{\frac{\sum_s \sum_d X_{sd}^2}{\sum_s \sum_w X_{sw}}}$ and measures the geographical concentration of trade (exports, imports or a combination of both) by reporting the degree to which a country's or a region's trade is dispersed across various destinations. The index takes values between 0 to 1, where higher values indicate greater concentration. In the index, $d$ is the destination, $s$ is the source country or region, $w$ is the set of countries in the world and $X$ is the bilateral flow of exports from source to destination. According to the direction of trade measured, $X$ can be substituted by $I$ (imports) or $TT$ (total trade).
are exceptions with higher than average levels of imports from the EU, 39% and 29% respectively.

Finally, the low intensity of trade and the lack of specialisation among the MS are also reflected in the measurement of their revealed comparative advantages. The index of Revealed Comparative Advantage (RCA)\(^ {19} \) shows that specialisation is particularly low. On a scale of 1 to -1, where 1 indicates full comparative advantage and -1 indicates complete lack of it, Cyprus had an RCA score of 0.35, the highest among the MS. Other MS with positive RCA scores were Romania (0.33), Czech Republic (0.29), Poland (0.28), Slovakia (0.25) and Slovenia (0.16).

<table>
<thead>
<tr>
<th>Country</th>
<th>Trade (Millions, USD)</th>
<th>Trade Growth (%)</th>
<th>Hirschmann-Herfindahl index</th>
<th>RCA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ex</td>
<td>Im</td>
<td>Balance</td>
<td>Ex</td>
</tr>
<tr>
<td>Cyprus</td>
<td>4.92</td>
<td>2.40</td>
<td>2.53</td>
<td>1.65</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>9.62</td>
<td>5.24</td>
<td>4.38</td>
<td>-0.03</td>
</tr>
<tr>
<td>Denmark</td>
<td>9.19</td>
<td>20.56</td>
<td>-11.37</td>
<td>-0.03</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.48</td>
<td>0.98</td>
<td>-0.51</td>
<td>2.46</td>
</tr>
<tr>
<td>Italy</td>
<td>23.67</td>
<td>29.90</td>
<td>-6.23</td>
<td>-0.17</td>
</tr>
<tr>
<td>Lithuania</td>
<td>3.76</td>
<td>n.a.</td>
<td>n.a.</td>
<td>0.58</td>
</tr>
<tr>
<td>Luxemburg</td>
<td>1.26</td>
<td>1.43</td>
<td>-0.17</td>
<td>0.48</td>
</tr>
<tr>
<td>Poland</td>
<td>7.74</td>
<td>4.34</td>
<td>3.41</td>
<td>0.34</td>
</tr>
<tr>
<td>Romania</td>
<td>7.47</td>
<td>3.74</td>
<td>3.74</td>
<td>n.a.</td>
</tr>
<tr>
<td>Slovakia</td>
<td>7.46</td>
<td>4.50</td>
<td>2.95</td>
<td>n.a.</td>
</tr>
<tr>
<td>Slovenia</td>
<td>4.78</td>
<td>3.49</td>
<td>1.29</td>
<td>-0.09</td>
</tr>
</tbody>
</table>

Source: Author's calculations based on United Nations Service Trade Statistics Database

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\(^{19}\) Revealed Comparative Advantage is calculated as \( \text{RCA}_{abj} = \frac{M_{abj} - X_{abj}}{M_{abj} + X_{abj}} \) where it is the difference between imports \((I)\) of country \(a\) from country \(b\) in sector \(j\) and the exports \((X)\) of country \(a\) from country \(b\) in sector \(j\), over the sum of imports \((I)\) of country \(a\) from country \(b\) in sector \(j\) and the exports \((X)\) of country \(a\) from country \(b\) in sector.
Another hint of the low levels of cross-border trade in Europe is indicated by survey data on the use of ICT among general practitioners and physicians (European Commission 2008). While this data do not cover the whole span of activities within the health sector, they nevertheless represent an important part of it. General practitioners are in most instances the first stop for patients seeking health and serve as a “service junction” between patients and health professionals. This data should be taken as indicative and complementary to the above analysis of trade statistics.

The results of the survey are striking. ICT infrastructure is now widely used throughout the EU, yet its potential is not exploited to provide services across the border. Furthermore, the wide gap between the availability of the e-health infrastructure and its local use suggests that a much bigger gap exists with regard to cross-border application. The potential for cross-border trade of healthcare services is benchmarked with regard to two types of variables: infrastructure and data storage variables. Infrastructure variables report a relatively high degree of potential. On average, computer usage by general practitioners is 87.4%, internet usage is 68.8%, broadband internet usage is 47.9%, and usage of computer during consultations with patients is 66.1%. This potential is further highlighted by the two data storage variables, which shed light on the actual practices of general practitioners in handling the data, which they have the potential to transmit to other healthcare providers, either within their own country or in another member state. First, the lion’s share of general practitioners in Europe (80%) use e-health infrastructure for electronic recording and storage of individual administrative patient data. In many countries, electronic recording and storage is well above 90%, with the notable exception of Latvia (26%). The vast majority of general practitioners also use e-health infrastructure for the storage and recording of key medical data, such as medical history, basic medical parameters, symptoms or the reasons for encounters, diagnoses, medications, laboratory results, ordered examinations and results, radiological images, vital signs measurements and treatment outcomes.

While existing infrastructure in the MS has broad potential for cross-border trade of healthcare services, the exploitation of this potential is low. Table 4 shows specific figures on

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20 The data used here is drawn from research commissioned by the European Commission on the usage of ICT among general practitioners in Europe. The survey covers 6,789 observations obtained from comprehensive interviews, conducted in all 27 EU MS, as well as in Norway and Iceland.

21 Only 35% of European general practitioners store radiological images. These findings contrast with the high level of teleradiology usage and application reported for the US. For an example, a 2003 study which included 78% of all radiologists in the US found that 67% of all radiology activities within the US were carried out using teleradiology (Todd Ebbert and others, “The State of Teleradiology in 2003 and Changes Since 1999” AJR 188 (2007)).
cross-border exchange of patient data and reveals that the average for the EU states is only 0.7% of the data stored. Since these figures represent trade and trade-like activity, it is striking that this number is significantly low, compared with the high levels of electronic storage of patients' data. The Netherlands (4.7%), Malta (3.3%), Cyprus (2.8%), Denmark (1.9%), France (1.7%) and Sweden (1.5%) are the only countries where medical data exchanges across the border are higher than 1%.
Table 4: Electronic Exchange of Patient Data by Purpose

<table>
<thead>
<tr>
<th>Country</th>
<th>Medical Data Cross Border</th>
<th>Lab Results from Laboratories</th>
<th>Admin Data to Reimburers</th>
<th>Medical Data to Care Providers/Professionals</th>
<th>Admin Data to Other Care Providers</th>
<th>Prescription to Pharmacies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>0.9</td>
<td>73.5</td>
<td>2.5</td>
<td>12.9</td>
<td>12.9</td>
<td>1.6</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1</td>
<td>5.3</td>
<td>9.7</td>
<td>3.4</td>
<td>5.8</td>
<td>2.4</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.7</td>
<td>24.7</td>
<td>12.8</td>
<td>5.6</td>
<td>5.9</td>
<td>0</td>
</tr>
<tr>
<td>Denmark</td>
<td>1.9</td>
<td>96.2</td>
<td>47.9</td>
<td>73.6</td>
<td>74</td>
<td>97.3</td>
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<tr>
<td>Germany</td>
<td>0</td>
<td>63.2</td>
<td>3.6</td>
<td>4</td>
<td>3.2</td>
<td>0</td>
</tr>
<tr>
<td>Estonia</td>
<td>0</td>
<td>39.3</td>
<td>5.3</td>
<td>1.3</td>
<td>1.3</td>
<td>0.7</td>
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<tr>
<td>Greece</td>
<td>1.9</td>
<td>3.5</td>
<td>2.5</td>
<td>4.4</td>
<td>4.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Spain</td>
<td>0.9</td>
<td>29.8</td>
<td>2.5</td>
<td>12.6</td>
<td>5.5</td>
<td>3.1</td>
</tr>
<tr>
<td>France</td>
<td>1.7</td>
<td>32.8</td>
<td>26.2</td>
<td>4.6</td>
<td>3.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.5</td>
<td>40.4</td>
<td>15.1</td>
<td>1.9</td>
<td>4.4</td>
<td>0.5</td>
</tr>
<tr>
<td>Italy</td>
<td>0.3</td>
<td>7.6</td>
<td>1</td>
<td>7.2</td>
<td>2.8</td>
<td>0.7</td>
</tr>
<tr>
<td>Cyprus</td>
<td>2.8</td>
<td>9.7</td>
<td>2.8</td>
<td>2.8</td>
<td>2.8</td>
<td>0</td>
</tr>
<tr>
<td>Latvia</td>
<td>0</td>
<td>1.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lithuania</td>
<td>0.4</td>
<td>7.6</td>
<td>20.5</td>
<td>2.7</td>
<td>9.5</td>
<td>1.1</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0</td>
<td>27.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hungary</td>
<td>0</td>
<td>12.4</td>
<td>4.8</td>
<td>2.4</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Malta</td>
<td>3.3</td>
<td>10.9</td>
<td>3.3</td>
<td>6.5</td>
<td>6.5</td>
<td>0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4.7</td>
<td>83.8</td>
<td>45.4</td>
<td>26</td>
<td>27.5</td>
<td>71</td>
</tr>
<tr>
<td>Austria</td>
<td>0.7</td>
<td>37.1</td>
<td>18.7</td>
<td>12.4</td>
<td>7.4</td>
<td>2</td>
</tr>
<tr>
<td>Poland</td>
<td>0</td>
<td>10</td>
<td>22.5</td>
<td>2.3</td>
<td>6.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.4</td>
<td>1.4</td>
<td>5.3</td>
<td>7.7</td>
<td>6.3</td>
<td>2.1</td>
</tr>
<tr>
<td>Romania</td>
<td>0</td>
<td>4.3</td>
<td>1.6</td>
<td>2</td>
<td>6.3</td>
<td>0</td>
</tr>
<tr>
<td>Slovenia</td>
<td>0</td>
<td>9.7</td>
<td>13.6</td>
<td>0</td>
<td>s2.9</td>
<td>1.9</td>
</tr>
<tr>
<td>Slovakia</td>
<td>0</td>
<td>4.6</td>
<td>4.2</td>
<td>1.1</td>
<td>1.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Finland</td>
<td>0.4</td>
<td>90</td>
<td>7.6</td>
<td>54.8</td>
<td>20.8</td>
<td>0.4</td>
</tr>
<tr>
<td>Sweden</td>
<td>1.5</td>
<td>82.4</td>
<td>8.2</td>
<td>13.1</td>
<td>15.7</td>
<td>80.9</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.4</td>
<td>84.9</td>
<td>43.2</td>
<td>26.5</td>
<td>31.5</td>
<td>5.1</td>
</tr>
<tr>
<td>EU27</td>
<td>0.7</td>
<td>39.8</td>
<td>15.1</td>
<td>10.3</td>
<td>9.7</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Source: European Commission and Empirica, 2008
3.2 Mode 2: Consumption Abroad

Trade in health services through consumption abroad takes place when the consumer crosses the border and consumes the service in the territory of the service provider. In contrast to cross-border trade in services, the feasibility of mode 2 trade is not subject to the availability of appropriate enabling technology. In fact, ancient examples exist of people travelling to spa towns across Europe for what they believed were the healing effects of mineral water.

Mode 2 is best exemplified by consumption of tourism services abroad. Within this context, health tourism has been a common feature, though not necessarily well documented. Typical health tourism services include cardiac surgeries, plastic and cosmetic surgeries, dental treatments and fertility treatments. Among the countries considered to be hubs of health tourism in Europe are Hungary, Poland, and Lithuania.22

Chief motivations for health tourism are associated with rising costs of domestic health care, in particular for specialised services, long waiting times for treatment, and lack of public health insurance in certain countries.23 Table 5 shows the large differentiation of healthcare costs for specialised medical treatments that exists within the EU by looking at the price of a hip replacement surgery for United Kingdom nationals. In the absence of longitudinal data and further data on prices of other treatments it is difficult to conclude whether price convergence is taking place within the EU market. Nevertheless, the differences reported here, may explain the motivation of health consumers to travel to another MS for medical treatment.

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Table 5: Hip Replacement Abroad (UK as home country)

<table>
<thead>
<tr>
<th>Country</th>
<th>Procedure price</th>
<th>Procedure saving</th>
<th>Travel cost</th>
<th>Hotel nights</th>
<th>Hotel per night</th>
<th>Hotel cost</th>
<th>Total price</th>
<th>Package saving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>£5,585</td>
<td>30%</td>
<td>£60</td>
<td>7</td>
<td>£45</td>
<td>£315</td>
<td>£5,960</td>
<td>26%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>£2,000</td>
<td>87%</td>
<td>£160</td>
<td>7</td>
<td>£45</td>
<td>£315</td>
<td>£2,475</td>
<td>69%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>£4,100</td>
<td>49%</td>
<td>£145</td>
<td>7</td>
<td>£40</td>
<td>£280</td>
<td>£4,525</td>
<td>43%</td>
</tr>
<tr>
<td>France</td>
<td>£5,689</td>
<td>29%</td>
<td>£60</td>
<td>7</td>
<td>£60</td>
<td>£420</td>
<td>£6,169</td>
<td>23%</td>
</tr>
<tr>
<td>Germany</td>
<td>£5,296</td>
<td>34%</td>
<td>£165</td>
<td>7</td>
<td>£60</td>
<td>£420</td>
<td>£5,881</td>
<td>26%</td>
</tr>
<tr>
<td>Hungary</td>
<td>£4,450</td>
<td>44%</td>
<td>£100</td>
<td>7</td>
<td>£40</td>
<td>£280</td>
<td>£4,830</td>
<td>40%</td>
</tr>
<tr>
<td>Latvia</td>
<td>£3,924</td>
<td>51%</td>
<td>£210</td>
<td>7</td>
<td>£20</td>
<td>£140</td>
<td>£4,274</td>
<td>47%</td>
</tr>
<tr>
<td>Spain</td>
<td>£5,695</td>
<td>29%</td>
<td>£100</td>
<td>7</td>
<td>£55</td>
<td>£385</td>
<td>£6,180</td>
<td>23%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>£8,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>£8,000</td>
<td></td>
</tr>
</tbody>
</table>


Consumption of health services abroad is captured in trade statistics as the “health-related expenditure” within the “Travel” category of EBOPS. Data on exports and imports of consumption abroad of health services is summarised in Table 6. Trade data for this mode of supply is more readily available, though still lacking for several economies, such as the United Kingdom, where data is available only for 2005.

Healthcare trade through consumption abroad plays a much bigger role than cross-border trade. The MS reporting healthcare trade through mode 2 show evidence that trade through consumption abroad is as much as several thousand percent higher than cross-border trade. While these differences may reflect an underestimation of the true magnitude of trade through mode 1, their outcome will not substantially change with higher figures of cross-border trade.

Trade directions are consistent over time, and net exporting MS (for both the EU-25 and the world) are Belgium, the Czech Republic, Estonia, Greece, Hungary and Italy. Bulgaria is a world net exporter, yet data is not available with regard to its trade with the rest of the MS. Net importers are Cyprus, Luxemburg and Slovenia. The United Kingdom is also a net importer from the EU, but the data suggest that it is a net exporter to the world. This finding is surprising,

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24 Extended Balance of Payments Statistics.
25 Bilateral data was available for 13 MS: Belgium, Cyprus, Czech Republic, Estonia, Germany, Greece, Hungary, Ireland, Italy, Luxemburg, Romania, Slovenia and United Kingdom.
particularly since it has widely been argued in the media (though not necessarily well quantified) that British patients are increasingly travelling to Eastern Europe and Asia for medical treatment.\textsuperscript{26}

Patient mobility is growing quickly as indicated in both export and import figures. On average, exports growth rates have been higher towards the world than for intra-EU trade; though in small margins in most cases (Greece and Italy had larger differences). In contrast, import growth from the EU has been much higher than from the world, suggesting that relatively more and more European citizens are seeking treatment in other MS.

Though clearly healthcare services trade through consumption abroad is larger and more vibrant than cross-border trade, its relative role compared with actual domestic production of healthcare services is still low. Trade in mode 2 out of gross output in healthcare services is the largest in Luxemburg (3.39%), Hungary (3.05%) and Belgium (2.05%) and the lowest in Greece (0.31%), Slovenia (0.54%) and the United Kingdom (0.05%). Although these ratios are relatively low, they are by far higher than those recorded for trade in mode 1. Taken in conjunction with the rapid growth rates of trade, the consumption of healthcare services across the border by EU nationals is becoming economically more important and suggests a movement towards greater market integration.

A strong indication towards market integration in Europe for healthcare services provided through mode 2 is given by the Hirschmann-Herfindahl index. Ireland had the lowest score on the index of 0.5, which indicates that half of its trade is oriented towards Europe. This score is higher than any score reported from cross-border trade. Other MS reported significantly higher scores, sometimes beyond 0.9, like in the case of both Belgium (0.94) and Luxemburg (0.93).

Finally, RCA scores also point towards a clearer pattern of specialisation among the MS. Three countries achieve relatively high RCA scores: Hungary (0.81), Greece (0.77) and the Czech Republic (0.72). Luxemburg shows a comparative disadvantage of (-0.67). The data concerning Italy is surprising because it suggest that Italy (0.32) has a mild comparative advantage in exporting healthcare services through mode 2 but a comparative disadvantage in mode 1. These findings are particularly interesting from a theoretical point of view since they

\textsuperscript{26} Various media reports argue that 50,000 United Kingdom citizens travelled overseas for medical treatment in 2007 and that 75,000 were expected to travel by the end of 2008, reaching an expected figure of 200,000 people travelling out of the United Kingdom for healthcare treatments by 2010 (Randeep Ramesh, "Is Health Tourism the Future?" The Guardian. 01/02/2005; Jerome Burne, "A World of Medical Opportunity: Special Report on Health Tourism." (2008))
suggest that a country can have both comparative advantage and disadvantage in the same sector, depending on specific modes of provision.

Table 6: Healthcare Consumption Abroad Trade within the EU, 2005

<table>
<thead>
<tr>
<th>Trade (Millions USD)</th>
<th>Trade Growth</th>
<th>Hirschmann-Herfindahl index</th>
<th>RCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex</td>
<td>Im</td>
<td>Balance</td>
<td>Ex</td>
</tr>
<tr>
<td>Belgium</td>
<td>512.01</td>
<td>269.08</td>
<td>242.92</td>
</tr>
<tr>
<td>Cyprus</td>
<td>2.59</td>
<td>7.58</td>
<td>-4.99</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>110.00</td>
<td>17.97</td>
<td>92.03</td>
</tr>
<tr>
<td>Estonia</td>
<td>4.16</td>
<td>1.76</td>
<td>2.41</td>
</tr>
<tr>
<td>Germany</td>
<td>n.a.</td>
<td>802.27</td>
<td>-802.27</td>
</tr>
<tr>
<td>Greece</td>
<td>39.42</td>
<td>5.10</td>
<td>34.32</td>
</tr>
<tr>
<td>Hungary</td>
<td>193.75</td>
<td>20.25</td>
<td>173.49</td>
</tr>
<tr>
<td>Ireland</td>
<td>n.a.</td>
<td>4.98</td>
<td>-4.98</td>
</tr>
<tr>
<td>Italy</td>
<td>107.13</td>
<td>54.81</td>
<td>52.32</td>
</tr>
<tr>
<td>Luxemburg</td>
<td>12.87</td>
<td>65.34</td>
<td>-52.47</td>
</tr>
<tr>
<td>Romania</td>
<td>n.a.</td>
<td>2.49</td>
<td>-2.49</td>
</tr>
<tr>
<td>Slovenia</td>
<td>9.14</td>
<td>3.92</td>
<td>5.22</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>58.30</td>
<td>65.59</td>
<td>-7.29</td>
</tr>
</tbody>
</table>

1 Romania's score of 1 should not be interpreted as complete EU trade orientation since it only reports trade statistics towards the EU (hence, EU=World)

Source: Author's calculations based on United Nations Service Trade Statistics Database

3.3 Mode 3: Commercial Presence

Trade through commercial presence involves the movement of the service supplier to the territory of the consumer. Most commonly, this is carried out through the establishment of some sort of legal entity, such as subsidiaries, branches, representative offices, joint ventures, partnerships and acquisitions of local companies. To a large extent, it overlaps with foreign direct investment in services.

Foreign commercial presence in the health service sector has not been significantly researched. The vast majority of the literature has focused on specific case studies, rather than
on accounting for the actual magnitude of internationalisation taking place through this mode of supply. In these studies, the United States has been regarded as an important source country for health care service firms established abroad, in particular in Latin America and in the United Kingdom. One particular study of the United Kingdom found that 22% of all independent hospital beds were owned by the United States. According to a study using the Fortune Global 500 list for 2002 as a single year, direct health service providers were the least internationalised, while producers of goods were the most internationalised.

Traditionally, data is not available for the trade of foreign companies within a country’s domestic market. Foreign companies are usually regarded as local entities and treated as such in national accounts and statistics. In recent years however, countries have begun to produce Foreign Affiliates Trade in Services Statistics (FATS) which cover a variety of indicators regarding the activities of foreign companies established in the host country, including export, import, sales, turnover and employment. This data is still incomplete, yet taken together with other sources of information, can provide good understanding as to the actual magnitude and patterns of trade in services through commercial presence.

An estimation of the degree of market integration within the EU is carried out here using company data extracted from the AMADEUS database. Analysis of AMADEUS data provides cross-country information regarding the level and nature of activity of foreign companies, and can thus serve as a good estimation for trade in services through commercial presence.

The survey was carried out on 3,974 companies within the EU, the European Economic Area (EEA) and Croatia. A sample of 773 companies was used for the study following data cleanup to ensure accuracy and comparability. The parameters examined included company’s name, industry sub-sector, headcount (number of employees), annual turnover, annual balance

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30 Analyse Major Databases from European Sources (AMADEUS). AMADEUS database covers in-depth financial information for some 10 million companies in Europe. The data contains information for both private and public companies, across countries and industries. Company financial data is accompanied by figures and records of ownership and subsidiary data, stock prices for listed companies, mergers and acquisitions information as well as market research and news.
sheet total, ultimate ownership, ultimate ownership’s country, and percentage of ultimate ownership out of total ownership.

The findings indicate market integration taking place through establishment and ownership of companies. The share of total foreign companies within the health service sector is 16.51%. This share rises to 18.21% when social work activities and veterinary activities are ignored. These figures are higher by far than the ratios of trade statistics reported for modes 1 and 2. Although comparable data is absent, these figures ought to be compared with similar ratios in other sub-sectors in the service industry to allow a better understanding as to how far integration takes place through commercial presence in the SM. Nevertheless, even in the absence of comparable data, this ratio represents a high degree of foreign ownership, particularly as private healthcare provision is in competition with public provision and is restricted by it in some of the MS.

Foreign ownership in medical practice activities comprises 24.39% of all ownership, foreign ownership in hospital activities is 10.38%, and is 10% in dental practice activities. Rising foreign ownership in the healthcare sector seems to correlate with the growing tendency towards privatisation and outsourcing that takes place in public health provision, mainly because of rising healthcare expenditures.

The data also suggests that the majority of foreign firms are concentrated in two main sectors. These firms make up 7.78% of the sub-sector “other human health activities”, and 5.18% of hospital activities. The data also indicates that firm size does not differ between local and foreign companies for the health services market as a whole.

Bilateral Foreign Direct Investment (FDI) statistics are not available for the healthcare sector and thus can neither complement the above company-level analysis, nor can they indicate the actual magnitude of activity in terms of investment flows and stocks. At the same time, United Nations Conference on Trade and Development (UNCTAD) World Investment Reports consistently show that health and social service FDI are rather low on a global scale (United Nations Conference on Trade and Development 1991-2007). Compared with the UNCTAD data, the AMADEUS results hint that intra-EU FDI in healthcare is considerably higher than in other regions.

Cross-border mergers and acquisitions (M&A) are another indicator as to the degree to which European companies are forging a single market in healthcare. UNCTAD’s World Trade

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31 Ultimate ownership is regarded as a single entity holding 25% or more of total direct or indirect ownership.
Investment Reports from 2004 to 2006 account for cross-border M&A whose value exceeds one billion dollars. Only five M&A are found globally between the years 2004 to 2006, with no M&A taking place in 2003. The yearly average value of M&A in health services for 2004-2006 is 3.9 billion dollars. Of these five M&As, two were purely European, two involved a European company and a non-European company and one took place in North America.

The M&As taking place in the EU have been in nursing and personal care facilities, and they were British healthcare providers acquired by investors outside the healthcare industry.\textsuperscript{32}

\textsuperscript{32} Other M&A took place at the surgical hospital industry, kidney analysis centres and drug stores and proprietary stores. The M&A in the drug store industry has been included in this survey due to its proximity to health services, though should not be viewed as part of the health services industry analysed here.
Table 7: Details of Cross-border M&A deals in Healthcare Services with Values of over $1 Billion Completed in 2003-2006

<table>
<thead>
<tr>
<th>Year</th>
<th>Rank in Year</th>
<th>Value</th>
<th>Acquired Company</th>
<th>Host Economy</th>
<th>Industry of Acquired Company</th>
<th>Acquiring Company</th>
<th>Home Economy</th>
<th>Industry of Acquiring Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>20</td>
<td>2.4</td>
<td>JC Penney-Eckerd Stores</td>
<td>United States</td>
<td>Drug stores and proprietary stores</td>
<td>Jean Coutu Group (PJC) Inc</td>
<td>Canada</td>
<td>Drug stores and proprietary</td>
</tr>
<tr>
<td>2004</td>
<td>53</td>
<td>1.4</td>
<td>Four Seasons Health Care Ltd</td>
<td>United Kingdom</td>
<td>Nursing and personal care facilities</td>
<td>Investor Group</td>
<td>Germany</td>
<td>Investors, nec</td>
</tr>
<tr>
<td>2005</td>
<td>91</td>
<td>1.5</td>
<td>Priory Healthcare Ltd</td>
<td>United Kingdom</td>
<td>Skilled nursing care facilities</td>
<td>ABN-AMRO Holding NV</td>
<td>Netherlands</td>
<td>Banks</td>
</tr>
<tr>
<td>2006</td>
<td>39</td>
<td>4</td>
<td>Renal Care Group Inc</td>
<td>United States</td>
<td>Kidney dialysis centres</td>
<td>Fresenius Medical Care AG &amp; Co Investor Group</td>
<td>Germany</td>
<td>Electromedical and electrotherapeutic apparatus</td>
</tr>
<tr>
<td>2006</td>
<td>40</td>
<td>3.9</td>
<td>General Healthcare Group PLC</td>
<td>United Kingdom</td>
<td>General medical and surgical hospitals</td>
<td>South Africa</td>
<td>Investors, nec</td>
<td></td>
</tr>
</tbody>
</table>


3.4 Mode 4: Movement of Natural Persons

Trade in services through mode 4 of services supply takes place when labour moves between countries and produces the service in the consumer’s home territory. The movement of natural persons can take place in various ways. One possibility is the movement of intra-corporate
transfers, whereby employees of a certain company move between countries but are still employed within the same company. Another is the movement across the border by independent persons seeking work independently.

Health professionals can move permanently, or temporarily, for purposes such as working holidays (sabbatical), study visits for the acquisition of knowledge and techniques, as well as fixed-term contracts. Various push and pull factors have been surveyed in the health sector to explain this. Push factors include low wages in the home country, poor working conditions, scarcity of resources and career development limitations. Among the pull factors are higher absolute and relative wages, better working conditions, career opportunities, greater availability of resources for work, the shortage of medical staff in many OECD countries and various policies enacted by OECD countries to attract physicians and nurses.

Several conclusions can be drawn from data concerning movement of healthcare professionals. First, the numbers and shares of foreign health professionals employed in many MS are growing. The United Kingdom reported in 2004 that over 9.37% of its healthcare labour force was staffed with foreign nationals. Specifically, 18.13% of its medical doctors were foreign nationals, and these numbers are considered to be even higher today. Similarly, 13.93% of Netherlands' healthcare professionals were foreign nationals. In the categories reported by Latvia (physicians, dentists and pharmacists), non-EU national shares were close to 20% and well beyond it.

33 Intra-corporate transference is also popularly referred to as "relocation".
35 This section mostly draws on data assembled in 11 case studies conducted under the European Migration Network. MS that participated in the studies are: Austria, Belgium, Estonia, Germany, Greece, Ireland, Italy, Latvia, The Netherlands, Sweden and the United Kingdom. In almost all cases, the year of reference is 2004. For the final report, see: European Migration Network, 2006.
Second, while foreign health professionals play a growing role in provision of healthcare services in Europe, most of them are from non-EU countries. This evidence supports past findings indicating the significance of developing countries as a supply source of healthcare professionals employed in the EU. For example, the share of health professionals employed in Germany from both the EU-25 and the EEA is only 1.42% compared with 2.35% coming from outside the EU. This difference is much higher in the Netherlands, where only 4.04% of the health professionals came from the EU, compared with 9.89% who arrived from outside the EU. Similarly, only 2.36% of health professionals in the UK came from other EU countries, in contrast to almost 7% coming from outside the EU.

Third, in some of the MS that are a destination for movement of EU health professionals, the latter take precedence over non-EU health professionals in specialised areas. Fourth, in some specialised areas, EU health professionals moving to other MS have particularly large relative shares of total professionals working in these fields, as well as significantly exceeding the share of non-EU professionals in these areas. In Austria, EU foreign nationals constitute 8.17% of all physiotherapists, 7.54% of occupational therapists, 6.27% of logopedic therapists, 6.94% of paediatric nurses and more. In Belgium, 7.18% of medical doctors and 4.75% of physiotherapists are EU foreign nationals. In Ireland, 8.7% of the pharmacists and 8% of psychologists come from other MS, while 7.03% and 5.17% of medical specialists and nurses respectively in Sweden are from other MS. Finally, 10.53% of all psychologists in the United Kingdom are foreign EU-nationals.

Fifth, somewhat surprisingly, new MS share of healthcare professionals moving to other MS is very low. In many cases, such as in Belgium, Germany, the Netherlands, Sweden and

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41 The data for Austria does not include medical doctors.
the United Kingdom, their share is below one percentage point. Since the data reported addresses 2004, the year in which the EU-10 acceded to the EU, a bias possibly exists in the data and their actual share today is much higher.

The data concerning the movement of health professionals suggests that rather than being influenced by legal and institutional developments at the EU level to allow greater mobility for healthcare (and other) professionals, the mobility of EU health professionals to other MS is influenced by a broader international trend. This general trend in the EU is considered to be influenced by both shortages of healthcare professionals in many MS, as well as active recruitment policies of some of the latter.\textsuperscript{43}

4. Implications and Conclusions

This paper has focused on the trade dimension of market construction, asking whether European integration takes place in the area of healthcare services. The empirical findings are rather striking and portray a different reality from the political one. While politically MS are in disagreement over the inclusion of healthcare within the SM, trade is becoming more and more significant. That is not to say that a SM in healthcare is in place, but market reality is more vibrant and deeper than can be expected.

Several implications and conclusions can be drawn from the above analysis. First, intra-EU trade in healthcare is increasingly becoming more and more important. Indeed, variation exists between different modes of supply, but trade growth is high and is oriented towards the EU. Consumption of healthcare by EU nationals in other MS is rapidly rising and so is the presence of cross-country ownships in healthcare service firms.

Second, relative to output, healthcare service trade is still minimal for cross-border trade and consumption abroad. These results suggest that although trade growth is high, it still not in par with domestic economic activity. Nevertheless, two qualifications ought to be in place. The first is that trade integration in services in the EU is much lower than in goods. Thus, average value of imports and exports of services divided by GDP for the EU-27 between 2004 and 2007 was 3.56%. Compared with the general integration of services in the EU, the findings for cross-border and consumption abroad trade become more significant. The second qualification is that the data analysed here focus on private healthcare trade (with the exclusion of the analysis of mode 4). Since government provision of healthcare is still high across the EU, intra-EU trade is more important than may appear at first glance.

Third, specialisation is taking place where trade is higher. Revealed comparative advantage shows that specialisation does not exist in cross-border trade of healthcare services. At the same time, specialisation is evident for consumption abroad and is an indication of greater market integration in this mode of supply.

Fourth, similar results are evident from the Hirschmann-Herfindahl index regarding the geographical concentration of trade. The concentration of cross-border trade in the EU is very low (lower than 10%), but trade through consumption abroad concentration in the EU is very high and reaches over 90% in some cases. High shares of foreign commercial presence (mode

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44 Eurostat.
3) are also evident in the EU, reaching more than 18% of total companies in healthcare services. The results with regard to the movement of healthcare professionals are somewhat surprising. While many member states host high numbers of foreign healthcare professionals, these come mainly from outside the EU. On the one hand, the mobility of EU healthcare professionals is very low, particularly when compared with extra-EU health professionals. On the other hand, EU healthcare professionals' mobility rates are still higher than the overall levels of cross-border labour mobility within the EU. Furthermore, the data shows that concentration of EU healthcare professionals takes place in some specialised healthcare professions in several member states.

Fifth, data on FDI in healthcare services is highly lacking, but is considered to be relatively low on a global scale. In that regard, the high share of foreign ownership in healthcare services could be a signal that commercial presence is the market layer where the closest integration takes place.

Finally, the new EU-12 MS have an important role in the trade dimension of the EU’s healthcare market. Many new MS, such as Hungary, Poland, Slovenia, Slovakia and Cyprus are net exporters to other EU MS and have a comparative advantage in the provision of these services. Furthermore, while the data on the movement of healthcare professionals is limited, it can be assumed that a significant rise in the movement of professional healthcare labour took place following 2004, as occurred in other professions with the gradual lift of movement barriers.

The comprehensive measurement of trade in services provided in this paper contributes to the growing yet minimal literature in this area, particularly in measuring international trade in healthcare services. Although many important political, institutional and legal aspects of market constructions have not been included in this paper, the trade analysis suggests that market creation is taking place by stealth.

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A Single Market in Healthcare Services by Stealth?

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